

Understanding Teacher Preparation of the Past: The Student Teaching Block in Agricultural Education

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Abstract

The preparatory experiences leading up to student teaching vary greatly. Understanding the evolution of the student teaching block can provide key guidance on what is needed for the student teacher of today and the student teacher of tomorrow. A historical narrative approach was used to understand the student teaching block as it has been developed and implemented historically in agricultural education. Six semi-structured interviews were conducted with participants who were current faculty at the rank of Professor in agricultural education and had been involved in agricultural education for at least 25 years. Four themes emerged through our analysis: (a) origins, (b) purpose and philosophy, (c) structural elements of the block, and (d) limitations and forward-thinking. Based on the findings, the purpose of the block as it relates to the agricultural education profession is to provide an intensive, immersive experience to prepare soon-to-be student teachers in an environment that provides an opportunity for practice and reflection before entering the classroom. It is recommended that periodic check-ins or seminars with student teachers be done to ensure they can reflect, share experiences, exchange ideas, discuss best practices, and learn from each other as they experience student teaching.

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Introduction and Problem Statement

The “real-life” teaching experience gained through the student teaching semester is a crucial step in the development of teachers (Beamer, 1967; Bransford et al., 2000; Camp & Bailey, 1998; Cardozier, 1967; Nichols, 1992; Sorenson et al., 2018). However, the structure and format of the student teaching experience have been ever evolving and differed considerably by state and institution (Martin, 1982). Additionally, the early field experiences and preparatory opportunities leading up to student teaching have also been found to vary greatly among teacher preparation programs (Retallick & Miller, 2010). Regardless of configuration, there can be no argument that the overall goal of student teaching is to produce a person who is no longer the student but has become the teacher in action and beliefs. To achieve this purpose, a transformative student teaching experience has required interactions between reflection, theory, and practice (Retallick & Miller, 2010).

Research has shown a multitude of factors that contribute to the nationwide teacher shortage (Castro et al., 2018; Cowan et al., 2016; Sutchter et al., 2016). The unique need for school-based agricultural education (SBAE) teachers to gain experience in areas outside of the competencies required of other teaching disciplines presents unique challenges (Sorensen et al., 2018). A framework for effectively preparing SBAE teachers for the classroom is needed, and the block presents a formatting option for teacher preparation programs to consider.

In this study, we will review and discuss the function of the student-teacher block and its role in preparing SBAE teachers. The history and purpose of the block will be explored through the lens of six of the profession's experienced agricultural teacher educators. The historical underpinnings of the block can be used by teacher educators in agricultural settings and beyond to inform and guide decisions regarding the content, aims, and structure of their teacher preparation programs.

Theoretical and Conceptual Framework

This study was grounded in human capital theory (Becker, 1964; Schultz, 1971) and specifically focused on teacher human capital (Myung et al., 2013). The teacher human capital framework outlines the approach to building a stronger teacher workforce that includes acquiring, developing, sustaining, and evaluating teachers (Myung et al., 2013). Ralph Tyler's (1983) four questions for curriculum development provide a framework for achieving lesson goals. These questions were operationalized for this study to serve as a framework for evaluating the purpose of teacher preparation programs to build capacity for a sustainable and effective teacher workforce. Tyler's (1983) four questions are: (a) What educational objectives are the students to be helped to attain, (b) what learning experiences can be provided that will enable the students to attain the objectives, (c) how can learning experiences be organized for effective and continuing learning, and (d) how can the effectiveness of the curriculum be evaluated (p. 74).

Quality instruction occurs when an identified purpose leads to the development of objectives that, in turn, guide instruction through activities and assessments (Tyler, 1983). Tyler's (1949) four questions provided the conceptual frame that guided the research objectives to obtain a clear purpose for the student teaching block in agricultural education. Additionally, the conceptual model of using Tyler's (1949) four questions through the lens of human capital (Becker, 1964; Schultz, 1971) provided an outline for understanding the evolution of the block experience over time and within institutions.

Mikeska et al. (2022) described practice-based teacher education (PBTE) as programs that were focused on pre-service teachers' learning of core teaching tasks. PBTE consisted of two core ideas: (a) teachers learn to teach by engaging in teaching, and (b) there are key practices in which teachers must learn to engage (Mikeska et al., 2022). Teacher education programs that have engaged their pre-service teachers in the enactment of teaching are grounded in PBTE (Mikeska et al., 2022). The block assists in developing teachers' human capital, provides a framework to organize and experiences needed for effective teacher preparation, and allows pre-service teachers to engage in teaching and core tasks associated with teaching.

Purpose

This historical narrative sought to investigate and describe the student teaching block in agricultural education. The following research questions guided this study:

1. Historically, what was the purpose and structure of the student teaching block in agricultural education?
2. How has the student teaching block changed over time in agricultural education?

Methods

A historical narrative approach was used to accomplish the study's purpose. Salevouris and Furay (2015) explained the historical narrative approach as analyzing various events, actors, and items that shaped a historical phenomenon. For the purposes of this study, the student teaching block was operationalized as the time period (weeks or days) immediately before the student teaching experience (also known as the student teaching internship), which is an intensive period used to prepare the cohort/students for the internship. Several sources of primary data were utilized to understand the history of the student teaching block in agricultural education: (a) expert interviews, (b) researcher-identified literature, and (c) participant-provided artifacts and literature (McDowell, 2002). A combination of purposive and snowball sampling methods was used to recruit participants (Creswell, 2013). Contact information for the participants ($N = 6$) was gathered via their university web pages.

Semi-structured, one-hour interviews were conducted via Zoom. Items in the interview protocol were developed to allow participants to provide descriptions of the student teaching block that were rich with their understanding of the block, its purpose, and the changes throughout history. Further, additional artifacts and literature were collected from participants

after conducting the interviews and were also used in the analysis. Observer comments in the form of field notes were recorded by the interviewers and aided in the interpretation and analysis of the transcripts (Ary et al., 2010). Six individual interviews were conducted. To be included, participants must have had 25 or more years of experience in agricultural education to participate, which could include their time as an in-service SBAE teacher. All participants were current faculty at the rank of Professor in agricultural education at land-grant universities. Five participants identified as male, and one participant identified as female.

Data Analysis

Otter.ai online software was used to transcribe each interview, with the researchers verifying the transcripts. Inductive coding using the constant comparative method was utilized to analyze the data (Corbin & Strauss, 2015; Creswell, 2013). Three rounds of coding, open, axial, and selective, were conducted (Corbin & Strauss, 2015). In the open coding round, interview transcription data were analyzed line-by-line to establish an initial set of 22 open codes (Miles & Huberman, 1994). These codes were organized in a data matrix using Microsoft Excel (Maxwell, 2013). Then, the research team negotiated and consolidated the codes. In the final round, codes were selected by the researchers, and four themes were confirmed.

Lincoln and Guba's (1985) criteria for establishing trustworthiness were used to ensure rigor. Credibility was established through data and investigator triangulation (Creswell, 2013). Additionally, inter-coder agreement was achieved through multiple rounds of coding. The research team met at least bi-weekly throughout the research project. During this time, confirmability was achieved through the practice of reflective bracketing to reduce bias (Tufford & Newman, 2010), exercising reflexivity around our assumptions and roles (Ary et al., 2010; Tracy, 2010), and conducting multiple data checks (Lincoln & Guba, 1985). Dependability was established through our use of rigorous qualitative methodologies, as described above. Lastly, transferability was established through our thick and rich data report below so that consumers of this research may draw their generalizations (i.e., naturalistic generalization) regarding our findings (Lincoln & Guba, 1985; Stake, 1978).

Findings

Little literature exists regarding the student teaching block. Therefore, the majority of the findings of this study will be through the stories and experiences of our participants, who served as primary sources, as seen in Table 1.

Table 1*Participant Experiences and Years in Profession*

Participant Identifier	Years in Profession	Experiences
A	41 years	SBAE teacher for 15 years who has worked in professional teacher education and curriculum development at three universities.
B	35 years	SBAE teacher for five years. Their career has spanned three universities, focusing on teacher preparation.
C	31 years	SBAE teacher for seven years. Their career has allowed them to be involved formally and informally with teacher education at three universities.
D	50 years	SBAE teacher for three years. Their career has involved teacher education at two universities.
E	35 years	SBAE teacher for eight years, then worked as the [State] FFA Coordinator. Over the course of their career, they have been involved in teacher preparation at three universities.
F	28 years	SBAE teacher for four years and has served in administrative and faculty positions at two universities.

Four themes emerged through our analysis of the data. The four themes included: (a) origins, (b) purpose and philosophy, (c) structural elements of the block, and (d) limitations and forward-thinking. The four themes described how the discipline of agricultural education has collectively used the block. The themes also allowed us to think about the future of the student teaching block and its purpose in teacher preparation.

Theme 1: Origins

Literature detailing the format of the block explained that senior pre-service teachers were placed at a school for one semester observing, then teaching the following semester (Works, 1916). Further description explained that during the original student teacher's teaching semester, a new pre-service teacher begins their observation period, forming a rudimentary community of practice with peer-to-peer learning and instruction (Works, 1916). Using this model, Beamer (1967) explained the first "block plan" as a highly structured sequence of teaching experiences, with the result culminating with student teaching (p. 201).

In addition to the literature identifying the origin of the block, several participants identified experiential learning theories and pragmatism as the basis for the block in agricultural education (Participants C, D, & E). For example, "John Dewey, all the way back to Will James

and pragmatism and that sort of thing has always been [our] basic philosophical roots, I would say" (Participant D). Participant F also cited Vygotsky (1978) as another foundational theory supporting the origin of the student teaching block stating, "You want the student challenged enough where they're struggling, but they're successful." Pedagogical content knowledge (PCK) (Shulman, 1986) was also identified as a relevant structure to teacher education (Participant C). It was suggested that the origin of the student teaching block in agricultural education began as early as 1917 with the passage of the Smith-Hughes Act (Participants A). Participant A said, "Dial back to 1917, Smith-Hughes ... we're gonna have vocational agriculture in thousands of American high schools. Where're the teachers? ... They had to figure out what was going to be the source of these teachers." Additionally, it was propounded that the initial structure and format of the block were based on approaches by other subject areas by teacher preparation programs at normal schools (Participant A).

Theme 2: Purpose & Philosophy

Through the analysis of the literature, a major purpose of the block emerged, the concept of professional learning communities (Bransford et al., 2000). A professional learning community encourages a social constructivist viewpoint through peer collaboration, thus creating a learner-centered environment where growth is likely to occur (Bransford et al., 2000). The cohort model commonly used in teacher preparation programs reflects the same structure as a professional learning community. A cohort is formed when students engage in a sequence of courses together and, along with their instructors, embody the interactions between reflection, theory, and practice that are needed for professional growth (Retallick & Miller, 2010).

Study participants echoed the observation of a teacher preparation cohort as a professional learning community. Participants noted that one purpose of the student teaching block period was to create a sense of camaraderie between students as they venture out at the same time into the same foundational lived experience. Participant A posited, "You get a very strong sense of camaraderie between the students, so you're developing a support system, they're all commiserating, they're all having the same experience." Another purpose of the student teaching block, as identified by a participant, is to confirm whether or not student teachers want to enter into the teaching profession. Participant E mentioned, "For some students, it's a defining moment in terms of whether or not they want to teach." Many participants (A, B, D, & E) utilized phrases such as "intense experience," "concentrated," "immersive work," and "capstone" to describe the purpose of the block. Participant F identified that the purpose of the block was to serve as a safety net, describing it as an opportunity to try everything you can, and if it fails, you have support there to assist. A critical purpose of the block, as mentioned by Participant A, is the opportunity to "sharpen" and practice delivering lessons in an environment created for feedback and critique before student teaching.

Participant C also provided insight into the purpose of the block being for a time of reflection. They stated, "They could do individual as well as group reflection on some of these important concepts with that experience they were having or are gaining that I think that was beneficial." Philosophically, Participants C, D, and E noted that the purpose and mission of the block experience are undergirded in experiential learning. Participant C stated, "Dewey really speaks

into the idea of experiential learning and how, you know, the student teaching experience is real-world practical experience." Others cited that pragmatism and proximal development theories were ably noticeable as foundational pieces of the student teaching blocks (Participants E & F). Participant C cited Lortie's (1975) work in the apprenticeship of observation also aids in describing the philosophical underpinnings of the block structure.

Theme 3: Structural Elements of the Block

A similar pedagogical program was noted in the literature known as the "summer practice program" (Beamer, 1967, p. 201). This format was described as occurring immediately before student teaching to prepare pre-service teachers for student teaching (Beamer, 1967). The summer programs consisted of two weeks in which students became familiar with the community and school and prepared for their teaching semester. The summer program experience was associated with a course in the fall semester in which pre-service teachers reported back to their peers and instructor, sharing their experiences and reflecting as a group (Beamer, 1967). While noted as highly favored by students and effective in structure, the summer program was not mentioned as an element of field experiences in the second edition of *Teacher Education in Agriculture* (Berkey, 1982). However, the block-type model in which structured opportunities to prepare for student teaching and engage in two-way communication has been a continued theme in agricultural teacher preparation (Miller & Wilson, 2010). A 15-week outline of student teaching is highlighted by student teachers beginning their semester on campus as a group before traveling to their student teaching centers. In the middle of the experience, the cohort returns to campus to share with other student teachers and university instructors. Finally, the cohort ends the semester with group reflections, once again on campus (Miller & Wilson, 2010).

When discussing the structure of the block at their current institutions, participant answers also varied. Participant A described the block as consisting of a one-week experience at the beginning of the student teaching semester with a midterm and final seminar meeting. Participant A said, "One week on campus, and then out for essentially close to 14 weeks, I guess, maybe coming back to campus a couple of times for various activities, and then finishing up with some sort of seminar at the end." This structure was a change from what was once a four-week experience prior to student teaching. Others described their institution's block format as initially a multi-week period prior to student teaching to now having no block, as described in this study. Participant D described the change by saying, "The student teaching experience itself in the public schools has, over the years, been increased to where it's now a full secondary school semester, which typically is a longer semester than our university semester." Course variation also differs across university block structures. Participant F stated, "we covered teaching methods, curriculum development." Participant B also identified that a teaching methods course is most often integrated differently across teacher preparation programs across the country when deciding whether to include a block or not.

Theme 4: Limitations and Forward Thinking

In an in-depth review of the literature, the importance of continuing to have conversations about teacher preparation was noted (Craig et al., 2022). Craig et al. (2020) stated that it is

important that we take into account the operationalization of the teacher preparation field. Research from the previous decade also noted that the focus on teacher preparation programs had been a recurring trend (Cruickshank & Cruz, 1989). Areas of focus throughout this time included improving teachers' necessary ancillary knowledge and teachers' general education (Cruickshank & Cruz, 1989).

Several participants spoke about the block's limitations and the current system's future. As a limitation, Participants A and D discussed the need for more field experience as a limitation to the block system, referencing an increase in state requirements of time in the classroom as one reason some universities have chosen to forgo the block experience. Participant A posited that literature and research demanded more time in the field for pre-service teachers and that the more experience they had, the better teacher they would be. Participant B provided a similar line of thought by noting:

I would say need dictated when we would put students out to student teach...it was needed for how to get all of the content met, and then how to logistically get all of the needs met for students as we would place them out for student teaching in a really efficient and effective way for certification.

Participant D commented that their university came to the realization of this need for more time in the classroom and the value it had on preparing them on how to take on the role of teacher.

Another limitation identified was the lack of opportunity to reflect once the block concluded. Participant A stated: "There's not enough time for deep reflection because you're just doing, doing, doing, go and go and go." Thinking toward the future, Participant D posited that reflection is important and integrating a block system that includes periodic check-ins throughout the semester to allow for reflection is something that should be considered. Many suggested their concerns moving forward (Participants B, C, & E). Some participants worried that if teacher preparation in agricultural education were to forgo the block system, that strong sense of community and the opportunity to develop a deep camaraderie, collaboration, and a sense of purpose would be lost. For example, Participant B mentioned, "You lose that opportunity to develop that deep camaraderie, sharing resources, not that some of that still doesn't happen, but probably not with the same kind of intensity that occurred in a four-to-six-week period." Some participants said preparing teachers continues to become more challenging as the contexts of classrooms continue to change and suggested rethinking the name of student teaching as a whole to embody the many roles teacher preparation programs must prepare students to fill. Participant C stated, "I really think student teaching is misnamed, you know, because it sounds like I'm a student at a university, and I'm going to go out and teach. And it's much more about student professional management." Participant D asserted that teacher preparation must continue to work to meet the increasing demand for teachers. They stated: "Universities aren't meeting those demands, and so, alternative programs are meeting those demands" (Participant D). Additionally, it was posited that not having good ag teachers does not bode well for the future of SBAE as a whole (Participant D).

Conclusions, Discussion, and Recommendations

Based on the findings, the purpose of the block, to provide an intensive experience for pre-service teachers in an environment rooted in practice and reflection, has remained the same over time. While the structure and format historically varied by the institution and continues to vary and evolve, the importance of being a reflective practitioner and finding peer support has remained a common thread. The findings are supported by Bandura (1977) that mastery experiences and opportunities to practice can lead to mastering a behavior and improve overall self-efficacy.

Findings showed a continued and longstanding trend of moving to a shorter block period. In some cases, preparation programs have opted to remove the block period completely in exchange for a semester or longer preparation experience. Understanding the evolution of the student teaching block from the summer program to today's present-day structure has provided key guidance on what is needed for today's generation of pre-service teachers and, maybe of greater importance, the student teacher that will be in the classrooms of the future. As professional learning communities have been shown to increase teacher satisfaction and development of knowledge and skills (Prenger et al., 2019) and situate students in a learner-centered environment promotes growth (Bransford et al., 2000), it is essential to consider how the importance of a community of learners and a sense of camaraderie will be facilitated if the block format is dissolved completely. When considering teacher human capital, careful consideration should be taken of how the inputs in teacher development programs can impact the outputs of sustained satisfaction in the profession (Myung et al., 2013).

In conclusion, the authors were able to trace the deep theoretical roots of the student teaching block to the foundations of social constructivism (Bruner, 1957), experiential learning (Dewey, 1938), and self-efficacy (Bandura, 1977) with other influences of learner development (Lortie, 1975; Vygotsky, 1978). With these theories, one common thread can be seen: the need for learners to have scaffolded experiences and purposeful reflection. Like much of education, the pendulum on what formatting is best to meet educational goals continues to evolve.

The authors recommend a format that includes periodic check-ins or seminars with student teachers. This structure ensures student teachers have the opportunity to reflect, share experiences, exchange ideas, discuss best practices, and learn from each other as they experience student teaching, as noted in Miller and Wilson (2010). Such a structure will also help to build a support system that can be used as they enter the profession and form their natural professional learning communities (Bransford et al., 2000). The aforementioned structure still provides an opportunity for intense immersive training to take place prior to student teaching to sharpen the skills and refresh knowledge on topics prior to entering the classroom. It is recommended that teacher preparation programs look closely at what is required by states for teacher preparation in terms of field experience and maximize the time students are in the classroom while still meeting those requirements. As a teacher preparation program, it is important to analyze what topics of instruction can be provided during the pre-

block period and what topics should be covered in the block structure, allowing for more opportunities for real-world application of necessary skills.

As a profession, it may be time that teacher preparation programs discuss the value of pre-internship block weeks as needed for practice and preparation. Could other models be more effective? For example, should student teachers begin the school year in their cooperating centers and return to campus later in the semester to reflect on lived experiences from their time in the classroom? On the other hand, by eliminating pre-internship block weeks entirely, are we reducing opportunities for student teachers to cohort, boost efficacy, and plan for a successful experience? Discussion around effectively organizing the block structure and content can ensure we achieve our purpose, which relates to Tyler's (1983) questions.

Future research should seek to understand the current understanding and perspectives of university faculty teaching a block course, cooperating teachers, and recent student teachers regarding the block. With an analysis of the teaching block's historical trends and the block's current perspectives, a study to explain how the differences have benefited or hindered the teacher development process and recommendations for organization should be conducted. Other research should explain the lived experiences of student teachers who had a block experience prior to student teaching versus those who began the school year in the classroom to identify the purpose of each format. This study specifically should look at the performance of teachers from each format.

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